

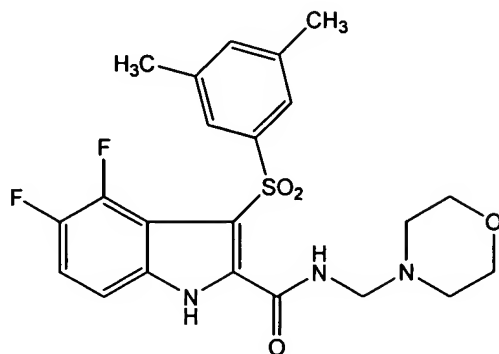
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

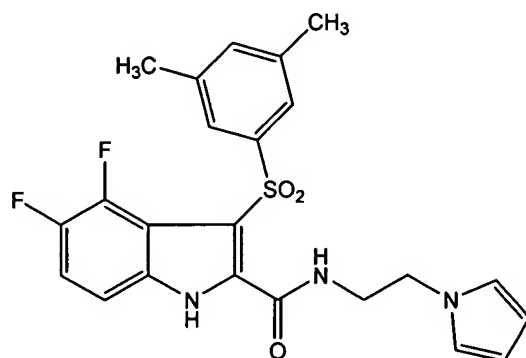
Claims 1-7 (cancelled)

Claim 8 (original): A compound of the formula



or a pharmaceutically acceptable salt thereof.

Claim 9 (original): A compound of the formula

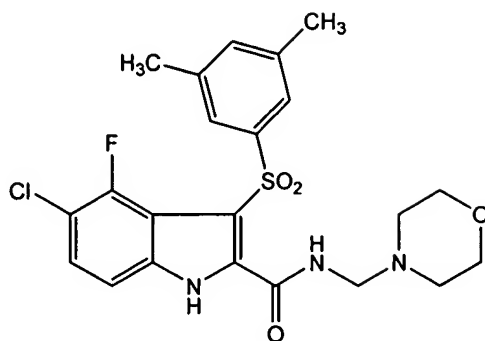


or a pharmaceutically acceptable salt thereof.

Claim 10 (cancelled)

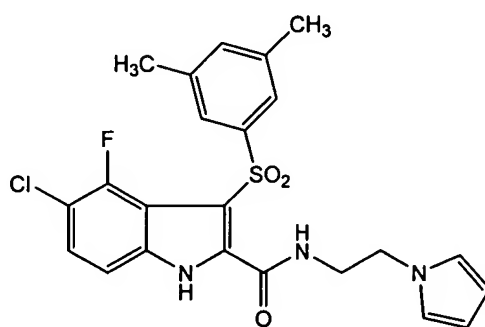
Claim 11 (cancelled)

Claim 12 (original): A compound of the formula



or a pharmaceutically acceptable salt thereof.

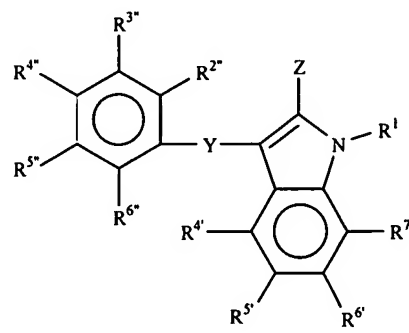
Claim 13 (original): A compound of the formula



or a pharmaceutically acceptable salt thereof.

Claims 14-18 (cancelled)

Claim 19 (currently amended): A method for the treatment or prophylaxis of an HIV-infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R^{4'}, R^{5'}, R^{6'}, R^{7'}, R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p-(amino acid);

wherein if R^{5'} is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; -(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

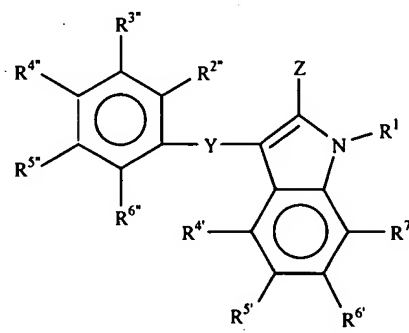
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 20 (currently amended): A method for the treatment or prophylaxis of an HIV-infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)ₚ-(amino acid); or -(CH₂)ₚ-(amino acid);

R⁴ʳ, R⁵ʳ, R⁶ʳ, R⁷ʳ, R²ʳ, R³ʳ, R⁴ʳ, R⁵ʳ and R⁶ʳ are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHCO-C₁-₃alkyl; -NR²SO₂-C₁-₃alkyl; -NHCO-C₁-₃alkyl; -NR²CO-C₁-₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)ₚ-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)ₚ-(amino acid); an amino acid; or -(CH₂)ₚ(amino acid);

wherein if R⁵ʳ is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHCO-C₁-₃alkyl; or -NHCO-C₁-₃alkyl, then at least one of R⁴ʳ, R⁶ʳ and R⁷ʳ is not hydrogen; or alternatively, wherein at least two of R⁴ʳ, R⁵ʳ, R⁶ʳ, R⁷ʳ are not hydrogen;

Z is optionally substituted or unsubstituted acyl; -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)ₚ-(amino acid); an amino acid; -(CH₂)ₚ-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

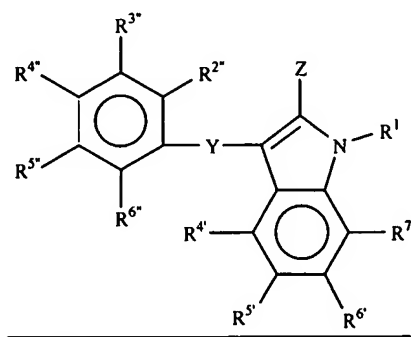
wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; $\text{C}_{1-3}\text{alkoxy}$; $\text{C}_{1-3}\text{thioether}$; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 21 (original): The method of claim 20, wherein the other anti-HIV agent is a reverse transcriptase inhibitor.

Claim 22 (original): The method of claim 21, wherein the reverse transcriptase inhibitor induces a mutation lysine 103 \rightarrow asparagine and/or tyrosine 181 \rightarrow cysteine in HIV reverse transcriptase.

Claim 23 (currently amended): A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV has a mutation at lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase, comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_n-(amino acid); or -(CH₂)_n-(amino acid);

R^{4'}, R^{5'}, R^{6'}, R^{7'}, R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_n-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_n-(amino acid); an amino acid; or -(CH₂)_n(amino acid);

wherein if R^{5'} is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_n-(amino acid); an amino acid; -(CH₂)_n-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)-OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

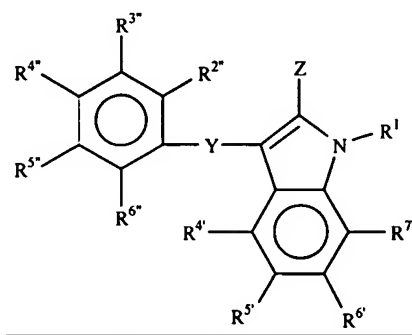
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 24 (currently amended): A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV is resistant to one or more reverse transcriptase inhibitor(s), comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)₀-(amino acid); or -(CH₂)₀-(amino acid);

R^{4'}, R^{5'}, R^{6'}, R^{7'}, R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)₀-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)₀-(amino acid); an amino acid; or -(CH₂)₀(amino acid);

wherein if R^{5'} is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)₀-(amino acid); an amino acid; -(CH₂)₀-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)-OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

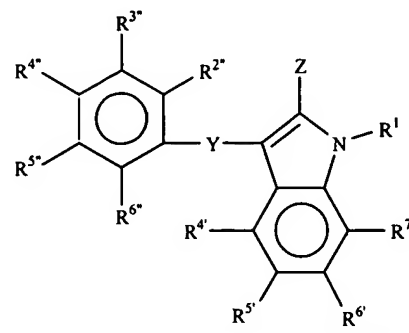
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of: halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 25 (currently amended): A method for salvage therapy in the treatment or prophylaxis of an HIV-infection in a host, comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R⁴, R⁵, R⁶, R⁷, R², R³, R⁴, R⁵ and R⁶ are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁-₃alkyl; -NR²SO₂-C₁-₃alkyl; -NHCO-C₁-₃alkyl; -NR²CO-C₁-₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_p-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p(amino acid);

wherein if R⁵ is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁-₃alkyl; or -NHCO-C₁-₃alkyl, then at least one of R⁴, R⁶ and R⁷ is not hydrogen; or alternatively, wherein at least two of R⁴, R⁵, R⁶, R⁷ are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; -(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

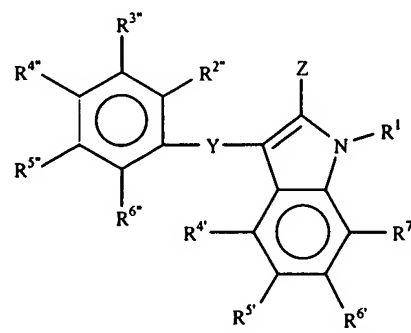
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 26 (currently amended): A method for salvage therapy in the treatment or prophylaxis of an HIV-infection in a host, comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R^{4'}, R^{5'}, R^{6'}, R^{7'}, R^{2''}, R^{3''}, R^{4''}, R^{5''} and R^{6''} are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁₋₃alkyl; -NR²SO₂-C₁₋₃alkyl; -NHCO-C₁₋₃alkyl; -NR²CO-C₁₋₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_p-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p(amino acid);

wherein if R^{5'} is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁₋₃alkyl; or -NHCO-C₁₋₃alkyl, then at least one of R^{4'}, R^{6'} and R^{7'} is not hydrogen; or alternatively, wherein at least two of R^{4'}, R^{5'}, R^{6'}, R^{7'} are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; -(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

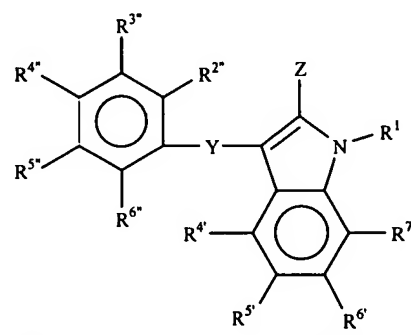
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 27 (currently amended): A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV is resistant to one or more reverse transcriptase inhibitor(s), comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R⁴, R⁵, R⁶, R⁷, R², R³, R⁴, R⁵ and R⁶ are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁-₃alkyl; -NR²SO₂-C₁-₃alkyl; -NHCO-C₁-₃alkyl; -NR²CO-C₁-₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_p-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p(amino acid);

wherein if R⁵ is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁-₃alkyl; or -NHCO-C₁-₃alkyl, then at least one of R⁴, R⁶ and R⁷ is not hydrogen; or alternatively, wherein at least two of R⁴, R⁵, R⁶, R⁷ are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; -(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

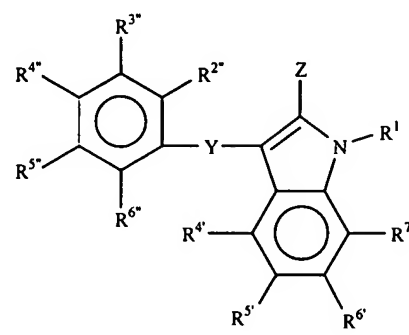
each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; C_{1-3} alkoxy; C_{1-3} thioether; or an amino acid residue;

optionally in a pharmaceutically acceptable carrier or diluent.

Claim 28 (currently amended): A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV has a mutation at lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase, comprising administering to said host an effective anti-HIV treatment amount of a compound of ~~claim 1~~, formula (I):



or its a pharmaceutically acceptable salt thereof, wherein

R¹ is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH-(CH₂)_p-(amino acid); or -(CH₂)_p-(amino acid);

R⁴', R⁵', R⁶', R⁷', R²'', R³'', R⁴'', R⁵'' and R⁶'' are each independently H; halo; -NO₂; -CN; -OH; -OR²; -SH; -SR²; -NH₂; -NHR²; -NR²R³; -NHSO₂-C₁-₃alkyl; -NR²SO₂-C₁-₃alkyl; -NHCO-C₁-₃alkyl; -NR²CO-C₁-₃alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl bromide; -CR²R²-S(O)_p-R³; -CR²R²NH₂; -CR²R²NHR²; -CR²R²NR²R³; -CR²R²-C(=O)R²; alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; -C(=O)NH₂; -C(=W)NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; or -(CH₂)_p(amino acid);

wherein if R⁵' is hydrogen, F, Cl, Br, -NO₂, -CN, -OR², -NR²R², -NHSO₂-C₁-₃alkyl; or -NHCO-C₁-₃alkyl, then at least one of R⁴', R⁶' and R⁷' is not hydrogen; or alternatively, wherein at least two of R⁴', R⁵', R⁶', R⁷' are not hydrogen;

Z is optionally substituted or unsubstituted acyl, -C(=O)NH₂; -C(=W)-NH₂; -C(=O)NHR²; -C(=W)NHR²; -C(=O)NR²R³; -C(=W)NR²R³; -C(=W)NH(CH₂)_p-(amino acid); an amino acid; -(CH₂)_p-(amino acid); -C(=O)R³; -C(=O)H; -C(=W)H; -C(=O)R²; -C(=W)R²; -C(=O)OR³; -C(=O)OH; -C(=W)OH; -C(=O)OR²; -C(=W)-OR²; -C(=O)-SH; -C(=W)SH; -C(=O)SR²; -C(=W)SR²; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH₃; CF₃; vinyl

bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^3$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^3$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; $-\text{CN}$; or halo;

Y is O; S; or $\text{S}(\text{O})_n$;

each W is independently O; S; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^2$; $-\text{N-CN}$; $-\text{N-NH}_2$; $-\text{N-NHR}^2$; $-\text{N-NR}^2\text{R}^3$; $-\text{N-OH}$; or $-\text{N-OR}^2$;

each R^2 is independently hydrogen; an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; or vinyl bromide;

each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl; CH_3 ; CF_3 ; vinyl bromide; $-\text{CR}^2\text{R}^2-\text{S}(\text{O})_n-\text{R}^2$; $-\text{CR}^2\text{R}^2\text{NH}_2$; $-\text{CR}^2\text{R}^2\text{NHR}^2$; $-\text{CR}^2\text{R}^2\text{NR}^2\text{R}^2$; $-\text{CR}^2\text{R}^2-\text{C}(=\text{O})\text{R}^2$; optionally substituted or unsubstituted aryl; optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl; optionally substituted or unsubstituted alkylheterocycle; optionally substituted or unsubstituted aralkyl; or optionally substituted or unsubstituted heterocycle-alkyl;

each n is independently 0, 1 or 2;

each p is independently 0, 1, 2, 3, 4 or 5; and

wherein the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl; lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl; or alkylheterocycle optionally is substituted with one or more of halogen; $-\text{OH}$; $-\text{OR}^2$; $-\text{SH}$; $-\text{SR}^2$; oxime; hydrazine; $-\text{C}(=\text{O})\text{H}$; $-\text{C}(=\text{W})\text{H}$; $-\text{C}(=\text{O})\text{R}^2$; $-\text{C}(=\text{W})\text{R}^2$; $-\text{C}(=\text{O})\text{OH}$; $-\text{C}(=\text{W})\text{OH}$; $-\text{C}(=\text{O})\text{OR}^2$; $-\text{C}(=\text{W})\text{OR}^2$; $-\text{C}(=\text{O})\text{SH}$; $-\text{C}(=\text{W})\text{SH}$; $-\text{C}(=\text{O})\text{SR}^2$; $-\text{C}(=\text{W})\text{SR}^2$; $-\text{C}(=\text{O})\text{NH}_2$; $-\text{C}(=\text{W})\text{NH}_2$; $-\text{C}(=\text{O})-\text{NHR}^2$; $-\text{C}(=\text{W})\text{NHR}^2$; $-\text{C}(=\text{O})\text{NR}^2\text{R}^3$; $-\text{C}(=\text{W})-\text{NR}^2\text{R}^3$; $-\text{NH}_2$; $-\text{NHR}^2$; $-\text{NR}^2\text{R}^3$; $-\text{NHSO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{SO}_2-\text{C}_{1-3}\text{alkyl}$; $-\text{NHCO}-\text{C}_{1-3}\text{alkyl}$; $-\text{NR}^2\text{CO}-\text{C}_{1-3}\text{alkyl}$; $-\text{S}(\text{O})_n-\text{R}^3$; $\text{C}_{1-3}\text{alkoxy}$; $\text{C}_{1-3}\text{thioether}$; or an amino acid residue;

in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 29 (original): The method of any one of claims 19-28 wherein the host is a human.